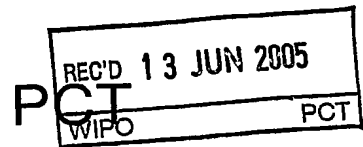


# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY



To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/IB2005/050618

International filing date (day/month/year)  
19.02.2005

Priority date (day/month/year)  
19.02.2004

International Patent Classification (IPC) or both national classification and IPC  
H04L29/08, H04L12/28

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS, N.V.

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050618

---

**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. II Priority**

---

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050618

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	2-9,11-16
	No: Claims	1,10
Inventive step (IS)	Yes: Claims	
	No: Claims	2-9,11-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

V. Citations and explanations:

A. Clarity:

1. Some features of claims 1 and 10 are expressed merely in the form of a statement of the "**result to be achieved**" ("... selectively sending and indication ...; and otherwise sending an indication ..." in claim 1; "... processing functions stored therein for selected packet types ...", "... received packet is one of said selected packet types ... and otherwise ..." in claim 10), rather than by specifying the concrete features that define how the effect is achieved (Article 6 PCT and Guidelines 5.35).

- 1.1 In particular, it is clear from the description (see in particular page 5, lines 12-14; page 5, line 26 to page 6, line 5) that **the following features are essential** to the definition of the invention in respect of providing the technical effect of reducing the delay on delay-sensitive services:

- 1) If the packet type indicates that a faster response is desired, a trigger is sent directly from the HW-MAC layer at the receive chain to the HW-MAC layer at the transmit chain; otherwise
- 2) if the packet type indicates that no faster response is desired, an indication is sent on to the SW-MAC layer at the receive chain, wherein it is processed and a SW-MAC generated response is forwarded to the transmit chain.

Since **independent claims 1 and 10** do not contain said features, they do not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

2. It should furthermore be noted that features relating to activities in which the use of a physical entity is implied (i.e. doing something by means of), are regarded as features of a **process**. On the other hand, functional features used to define physical entities

(e.g. "means for ..."), are interpreted as features of a **system/apparatus** (PCT Guidelines 5.12).

If claim 10 is intended to be directed to a physical entity (apparatus), the features of said claim should be formulated as functional features used to define physical entities (i.e. "means for..."). This is not the case at present, since some of the features of said claim are defined as features relating to activities in which the use of a physical entity is implied (e.g. "... wherein a packet type associated with said received data packet is determined in said hardware portion of said MAC...", "... if said packet type of said received data packet is one of said selected packet types, then an associated hardware processing function is performed", and "... otherwise a response indication is forwarded..."). This leads to **doubts as to the category of this claim**, resulting in lack of clarity on the subject-matter for which protection is sought (PCT Guidelines 5.02). A reformulation in terms of features clearly falling in the apparatus category is hence necessary (e.g. like "...said hardware portion of said MAC having means to determine a packet type associated with said received data packet", "... the hardware MAC has means to perform an associated hardware processing function, if said packet type of said received data packet is one of a selected packet types...", and "... the hardware MAC has means to otherwise forward a response indication to said software portion of said MAC").

B. Novelty and Inventive Step:

3. Reference is made to the following documents:

**D1:** WO 02/23853 A2

**D2:** US 2001/0055281

4. Document **D1** (see in particular abstract; page 4, line 25 to page 5, line 9; Figure 5) discloses, according to **all** the features of **claim 1**, a method for handling data packets in a medium access control MAC layer comprising the steps of:  
receiving a data packet (see page 4, line 29; "62 - incoming frame from

network" in Figure 5);

forwarding said data packet to a hardware portion of said MAC layer in a receive chain (see page 4, line 29; "70 - extracting frame characteristics" in Figure 5);

determining, in said hardware portion of said MAC layer in said receive chain, a packet type associated with said received data packet (see page 4, lines 29-32; "70 - extracting frame characteristics" in Figure 5);

selectively sending an indication directly to a hardware portion of said MAC layer in a transmit chain based on said packet type (see page 4, lines 17-19 and lines 29-31; "72 - processing FLPM time-critical functions" in Figure 5); and otherwise, sending an indication to a software portion of said MAC layer of said receive chain for generation of a response (see page 4, lines 17-19 and lines 31-32; "68 - outgoing frame to host CPU" in Figure 5).

The subject-matter of claim 1 is therefore **not new**, Article 33(2) PCT.

5. Document **D1** (see in particular page 4, lines 3-32; Figures 3 and 5) discloses, according to the **main** features of **claim 1**, a wireless communication device (see Figure 3) comprising:

means for receiving a data packet (see page 4, line 29; "44 - antenna" in Figure 3; "62 - incoming frame from network" in Figure 5);

a medium access controller MAC having a hardware portion and a software portion (see "42 - MAC unit" and "36 - Host CPU" in Figure 3), said hardware portion of said MAC having means to determine a packet type associated with said received data packet (see page 4, lines 29-32; "70 - extracting frame characteristics" in Figure 5); wherein

the hardware portion of the MAC has means to perform an associated hardware processing function, if said packet type of said received data packet is one of a selected packet types (see page 4, lines 17-19 and lines 29-31; "72 - processing FLPM time-critical functions" in Figure 5); and

the hardware portion of the MAC has means to otherwise forward a response indication to said software portion of said MAC (see page 4, lines 17-19 and lines 31-32; "68 - outgoing frame to host CPU" in Figure 5).

The subject-matter of claim 1 differs from that disclosed in document **D1** merely in that the hardware portion of the MAC comprises a receive action table having hardware processing functions stored therein for selected packet types.

The objective problem derived therefrom is to schedule appropriately and in an organised way the actions taken by the hardware portion of the MAC when receiving incoming data packets.

In consulting the prior art in the general field of telecommunications and related mechanisms for medium access, the skilled person, wishing to find a solution to overcome the above mentioned problem, **would** come across document **D2** (see in particular abstract; paragraphs 7, 9, 23, 24, 27-30, 32, 33 and 41; Figure 4), which discloses a mechanism for accessing the medium, wherein a hardware portion of a medium access controller comprises a receive action table (i.e. a look-up table) having hardware processing functions stored therein for selected packet types (i.e. the look-up table defines the current status, and a further action to be carried out when a certain event happens, said event being, for instance, the reception of certain data packet).

For a skilled person, therefore, starting from the wireless communication device described in document **D1** and being aware both of the above problem and of the **principle** of the solution described in document **D2** (i.e. to implement a look-up table comprising the actions to be taken when certain events happen, e.g. the reception of data packets), it **would** be obvious to apply the teachings of document **D2** to the wireless communication device of document **D1**, in order to arrive at a wireless communication device wherein the above problem has been overcome.

The skilled person would thus arrive, **without** the exercise of inventive skill, at the wireless communication device corresponding to the subject-matter of claim 1.

Hence, the subject-matter of claim 1, does **not** involve an inventive step, Article 33(3) PCT.

6. **Dependent claims 2-9 and 11-16 do not** contain any additional features which, in combination with the features of the claim to which they refer, involve an inventive step for the reason that the subject-matter of said claims is **in principle** derivable from the disclosure of document **D1** (for **claim 6 and 14**: see in particular page 6, lines 28-32), **or** document **D2** (for **claims 4, 7 and 15**: see in particular paragraphs 27, 32, 33 and 41; for **claim 5 and 13**: see in particular paragraph 7), **or** represents common design details which are well-known to the person skilled in the field of telecommunications and related mechanisms for medium access.

Due to the above reasons, the subject-matter of dependent claims 2-10 and 11-16 do **not** involve an inventive step, Article 33(3) PCT.

**VII. Certain defects in the international application:**

7. The independent claims 1 and 10 are not correctly cast in the **correct two-part form**, with those features which in combination are part of the nearest prior art (i.e. document **D1**) being placed in the preamble, Rule 6.3(b) PCT.
8. The claims (preamble and characterising portion) do not contain **reference signs** in parentheses, Rule 6.2(b) PCT.
9. The cited documents **D1 and D2**, which represent the **relevant state of the art** with regard to the present application, are not acknowledged and briefly discussed in the opening part of the description, Rule 5.1(a)(ii) PCT.
10. The **vague and imprecise general statement** in the description on page 11 in line 8 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity of the claims (see Article 6 PCT) when used to interpret them.

**VIII. Certain observations on the international application:**



11. The expression "... for generation of said response..." in line 7 of claim 1 is **not** clear (Article 6 PCT) since said expression has not been previously defined in said claim, i.e. there is **no antecedent** for it.
12. The use of text between parentheses not relating to **reference signs** throughout the claims should be avoided (Article 6 PCT, Rule 6.2(b) PCT), because of the uncertainty as to its limiting character, e.g. if mistaken for reference signs (e.g. in claim 1 "(MAC)"). Expressions such as "medium access control MAC" would be however acceptable.
13. The expression "... is performed and otherwise wherein a response..." in claim 10 is not clear (Article 6 PCT) and should be checked.

**Additional remarks:**

14. In case of submitting amendments (e.g. in the PCT Chapter II or Regional Phase), the following remarks should be taken into account:
  - 14.1 The **opening part of the description** should be modified to bring it into agreement with any amended independent claim, Rule 5.1(a)(iii) PCT.
  - 14.2 The description comprises on page 9 in line 7 references to documents which are **"incorporated by reference"**. If the Applicant is of the opinion that the content of these documents are essential for carrying out the invention, the content should be included in the description within the limits of Article 34(2)(b) PCT, because the patent specification should, regarding the essential features of the invention, be self-contained, i.e. able of being understood without reference to any other document (see also PCT Guidelines 4.26). If not, the used expression "which is hereby incorporated by reference", or any expression of the same kind should be deleted at the latest when entering the national/regional phase before bodies having particular regulations contrary to the use of such expressions (such as e.g. the EPO applying the principles of the EPC).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

**PCT/IB2005/050618**

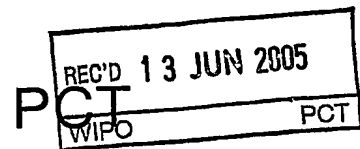
14.3 Care should be taken during revision not to add subject-matter which extends beyond the content of the application as originally filed, Article 34(2)(b) PCT.

**In his letter of reply, the Applicant should indicate the parts of the originally filed application serving as a basis for subject-matter newly introduced into the claims.**

14.4 The Applicant is requested to file amendments by way of replacement pages in accordance with Rule 66.8 PCT.

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY



To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/IB2005/050618

International filing date (day/month/year)  
19.02.2005

Priority date (day/month/year)  
19.02.2004

International Patent Classification (IPC) or both national classification and IPC  
H04L29/08, H04L12/28

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS, N.V.

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

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Authorized Officer

Moreno-Solana, S-F  
Telephone No. +49 89 2399-7678



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050618

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**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

---

**Box No. II Priority**

---

1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050618

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	2-9,11-16
	No: Claims	1,10
Inventive step (IS)	Yes: Claims	
	No: Claims	2-9,11-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations

**see separate sheet**

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**Box No. VII Certain defects in the international application**

---

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

---

**Box No. VIII Certain observations on the international application**

---

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

V. Citations and explanations:

A. Clarity:

1. Some features of claims 1 and 10 are expressed merely in the form of a statement of the "**result to be achieved**" ("... selectively sending and indication ...; and otherwise sending an indication ..." in claim 1; "... processing functions stored therein for selected packet types ...", "... received packet is one of said selected packet types ... and otherwise ..." in claim 10), rather than by specifying the concrete features that define how the effect is achieved (Article 6 PCT and Guidelines 5.35).

- 1.1 In particular, it is clear from the description (see in particular page 5, lines 12-14; page 5, line 26 to page 6, line 5) that **the following features are essential** to the definition of the invention in respect of providing the technical effect of reducing the delay on delay-sensitive services:

- 1) If the packet type indicates that a faster response is desired, a trigger is sent directly from the HW-MAC layer at the receive chain to the HW-MAC layer at the transmit chain; otherwise
- 2) if the packet type indicates that no faster response is desired, an indication is sent on to the SW-MAC layer at the receive chain, wherein it is processed and a SW-MAC generated response is forwarded to the transmit chain.

Since **independent claims 1 and 10** do not contain said features, they do not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

2. It should furthermore be noted that features relating to activities in which the use of a physical entity is implied (i.e. doing something by means of), are regarded as features of a **process**. On the other hand, functional features used to define physical entities

(e.g. "means for ..."), are interpreted as features of a **system/apparatus** (PCT Guidelines 5.12).

If claim 10 is intended to be directed to a physical entity (apparatus), the features of said claim should be formulated as functional features used to define physical entities (i.e. "means for..."). This is not the case at present, since some of the features of said claim are defined as features relating to activities in which the use of a physical entity is implied (e.g. "... wherein a packet type associated with said received data packet is determined in said hardware portion of said MAC...", "... if said packet type of said received data packet is one of said selected packet types, then an associated hardware processing function is performed", and "... otherwise a response indication is forwarded..."). This leads to **doubts as to the category of this claim**, resulting in lack of clarity on the subject-matter for which protection is sought (PCT Guidelines 5.02). A reformulation in terms of features clearly falling in the apparatus category is hence necessary (e.g. like "...said hardware portion of said MAC having means to determine a packet type associated with said received data packet", "... the hardware MAC has means to perform an associated hardware processing function, if said packet type of said received data packet is one of a selected packet types...", and "... the hardware MAC has means to otherwise forward a response indication to said software portion of said MAC").

B. Novelty and Inventive Step:

3. Reference is made to the following documents:

**D1:** WO 02/23853 A2

**D2:** US 2001/0055281

4. Document **D1** (see in particular abstract; page 4, line 25 to page 5, line 9; Figure 5) discloses, according to **all** the features of **claim 1**, a method for handling data packets in a medium access control MAC layer comprising the steps of:
- receiving a data packet (see page 4, line 29; "62 - incoming frame from

network" in Figure 5);

forwarding said data packet to a hardware portion of said MAC layer in a receive chain (see page 4, line 29; "70 - extracting frame characteristics" in Figure 5);

determining, in said hardware portion of said MAC layer in said receive chain, a packet type associated with said received data packet (see page 4, lines 29-32; "70 - extracting frame characteristics" in Figure 5);

selectively sending an indication directly to a hardware portion of said MAC layer in a transmit chain based on said packet type (see page 4, lines 17-19 and lines 29-31; "72 - processing FLPM time-critical functions" in Figure 5); and otherwise, sending an indication to a software portion of said MAC layer of said receive chain for generation of a response (see page 4, lines 17-19 and lines 31-32; "68 - outgoing frame to host CPU" in Figure 5).

The subject-matter of claim 1 is therefore **not new**, Article 33(2) PCT.

5. Document D1 (see in particular page 4, lines 3-32; Figures 3 and 5) discloses, according to the **main** features of **claim 1**, a wireless communication device (see Figure 3) comprising:

means for receiving a data packet (see page 4, line 29; "44 - antenna" in Figure 3; "62 - incoming frame from network" in Figure 5);

a medium access controller MAC having a hardware portion and a software portion (see "42 - MAC unit" and "36 - Host CPU" in Figure 3), said hardware portion of said MAC having means to determine a packet type associated with said received data packet (see page 4, lines 29-32; "70 - extracting frame characteristics" in Figure 5); wherein

the hardware portion of the MAC has means to perform an associated hardware processing function, if said packet type of said received data packet is one of a selected packet types (see page 4, lines 17-19 and lines 29-31; "72 - processing FLPM time-critical functions" in Figure 5); and

the hardware portion of the MAC has means to otherwise forward a response indication to said software portion of said MAC (see page 4, lines 17-19 and lines 31-32; "68 - outgoing frame to host CPU" in Figure 5).



The subject-matter of claim 1 differs from that disclosed in document **D1** merely in that the hardware portion of the MAC comprises a receive action table having hardware processing functions stored therein for selected packet types.

The objective problem derived therefrom is to schedule appropriately and in an organised way the actions taken by the hardware portion of the MAC when receiving incoming data packets.

In consulting the prior art in the general field of telecommunications and related mechanisms for medium access, the skilled person, wishing to find a solution to overcome the above mentioned problem, **would** come across document **D2** (see in particular abstract; paragraphs 7, 9, 23, 24, 27-30, 32, 33 and 41; Figure 4), which discloses a mechanism for accessing the medium, wherein a hardware portion of a medium access controller comprises a receive action table (i.e. a look-up table) having hardware processing functions stored therein for selected packet types (i.e. the look-up table defines the current status, and a further action to be carried out when a certain event happens, said event being, for instance, the reception of certain data packet).

For a skilled person, therefore, starting from the wireless communication device described in document **D1** and being aware both of the above problem and of the **principle** of the solution described in document **D2** (i.e. to implement a look-up table comprising the actions to be taken when certain events happen, e.g. the reception of data packets), it **would** be obvious to apply the teachings of document **D2** to the wireless communication device of document **D1**, in order to arrive at a wireless communication device wherein the above problem has been overcome.

The skilled person would thus arrive, **without** the exercise of inventive skill, at the wireless communication device corresponding to the subject-matter of claim 1.

Hence, the subject-matter of claim 1, does **not** involve an inventive step, Article 33(3) PCT.

6. **Dependent claims 2-9 and 11-16 do not** contain any additional features which, in combination with the features of the claim to which they refer, involve an inventive step for the reason that the subject-matter of said claims is **in principle** derivable from the disclosure of document **D1** (for **claim 6 and 14**: see in particular page 6, lines 28-32), **or** document **D2** (for **claims 4, 7 and 15**: see in particular paragraphs 27, 32, 33 and 41; for **claim 5 and 13**: see in particular paragraph 7), **or** represents common design details which are well-known to the person skilled in the field of telecommunications and related mechanisms for medium access.

Due to the above reasons, the subject-matter of dependent claims 2-10 and 11-16 do **not** involve an inventive step, Article 33(3) PCT.

**VII. Certain defects in the international application:**

7. The independent claims 1 and 10 are not correctly cast in the **correct two-part form**, with those features which in combination are part of the nearest prior art (i.e. document **D1**) being placed in the preamble, Rule 6.3(b) PCT.
8. The claims (preamble and characterising portion) do not contain **reference signs** in parentheses, Rule 6.2(b) PCT.
9. The cited documents **D1 and D2**, which represent the **relevant state of the art** with regard to the present application, are not acknowledged and briefly discussed in the opening part of the description, Rule 5.1(a)(ii) PCT.
10. The **vague and imprecise general statement** in the description on page 11 in line 8 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity of the claims (see Article 6 PCT) when used to interpret them.

**VIII. Certain observations on the international application:**

11. The expression "... for generation of said response..." in line 7 of claim 1 is **not** clear (Article 6 PCT) since said expression has not been previously defined in said claim, i.e. there is **no antecedent** for it.
12. The use of text between parentheses not relating to **reference signs** throughout the claims should be avoided (Article 6 PCT, Rule 6.2(b) PCT), because of the uncertainty as to its limiting character, e.g. if mistaken for reference signs (e.g. in claim 1 "(MAC)"). Expressions such as "medium access control MAC" would be however acceptable.
13. The expression "... is performed and otherwise wherein a response..." in claim 10 is not clear (Article 6 PCT) and should be checked.

**Additional remarks:**

14. In case of submitting amendments (e.g. in the PCT Chapter II or Regional Phase), the following remarks should be taken into account:
  - 14.1 The **opening part of the description** should be modified to bring it into agreement with any amended independent claim, Rule 5.1(a)(iii) PCT.
  - 14.2 The description comprises on page 9 in line 7 references to documents which are **"incorporated by reference"**. If the Applicant is of the opinion that the content of these documents are essential for carrying out the invention, the content should be included in the description within the limits of Article 34(2)(b) PCT, because the patent specification should, regarding the essential features of the invention, be self-contained, i.e. able of being understood without reference to any other document (see also PCT Guidelines 4.26). If not, the used expression "which is hereby incorporated by reference", or any expression of the same kind should be deleted at the latest when entering the national/regional phase before bodies having particular regulations contrary to the use of such expressions (such as e.g. the EPO applying the principles of the EPC).

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

**PCT/IB2005/050618**

14.3 Care should be taken during revision not to add subject-matter which extends beyond the content of the application as originally filed, Article 34(2)(b) PCT.

**In his letter of reply, the Applicant should indicate the parts of the originally filed application serving as a basis for subject-matter newly introduced into the claims.**

14.4 The Applicant is requested to file amendments by way of replacement pages in accordance with Rule 66.8 PCT.